

## **ABSTRACT**

An MOCVD apparatus and process for producing multi-layer HTS-coated tapes with increased current capacity which includes multiple liquid precursor sources, each having an associated pump and vaporizer, the outlets of which feed a multiple compartment showerhead apparatus within an MOCVD reactor. The multiple compartment showerhead apparatus is located in close proximity to an associated substrate heater which together define multiple deposition sectors in a deposition zone.